IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

RED ROCK ANALYTICS, LLC,	§	
	§	
Plaintiff,	§	
	§	Case No. 2:17-cv-00101-RWS-RSP
v.	§	
	§	
SAMSUNG ELECTRONICS CO. LTD. ET AL,	§	
	§	
	§	
Defendants.	§	

REPORT & RECOMMENDATION AND MEMORANDUM OPINION

In this case, Plaintiff Red Rock Analytics, LLC (hereinafter "Red Rock") alleges that Defendants Samsung Electronics Co. Ltd., Samsung Electronics America, Inc., Samsung Semiconductor, Inc., and Samsung Austin Semiconductor, LLC (hereinafter "Samsung") infringed U.S. Patent No. 7,346,313. (Dkt. No. 1 at ¶ 10.) Samsung filed a Motion for Summary Judgment of Non-Infringement (Dkt. No. 153.)[1]

Samsung asserts that a dispute has arisen as to the meaning of the "observable indicator" and "signal path for injecting" terms and argues that the Court should resolve these claim construction disputes prior to trial. (Dkt. No. 188 at 1 (citing *O2 Micro Int'l Ltd. v. Beyond Innovation Tech., Co.*, 521 F.3d 1351 (2008)).)

Only two summary judgment issues remain for the Court to resolve.[2] The first issue is whether reasonable jury could conclude that the Accused Products containing accused

[1] Red Rock also filed its Response in Opposition (Dkt. No. 169), Samsung filed its Reply (Dkt. No. 188), and Red Rock filed its Sur-Reply (Dkt. No. 200).
[2] Samsung originally argued that a reasonable jury could not conclude that a "calibration RF signal" existed within Accused Products containing Qualcomm transceivers that determines both transmitter and receiver I-Q gain settings.

Broadcom transceivers possess an "observable indicator" that is minimized to determine both transmitter I-Q gain settings and receiver I-Q gain settings. (Dkt. No. 153 at 5.) The second issue is whether a reasonable jury could conclude that the accused transceivers within all of the Accused Products include "a signal path for injecting the calibration RF signal from the RF transmit signal port to the RF receive signal port." (*Id.*)

After consideration of the briefing, the Court construes the "observable indicator" term to have its plain and ordinary meaning with the additional guidance that the "observable indicator" must be formed from a single signal and that it may be a quantity of measurement. The Court also construes the "signal path for injecting the calibration RF signal" term to have its plain and ordinary meaning and rejects Samsung's proposed construction for this term. Further, the Court recommends that Samsung's Motion for Summary Judgment be **DENIED** for both remaining summary judgment grounds.

I. Proper constructions for the "observable indicator" term

Two disputes arise over the observable indicator term: (1) whether the "observable indicator" must be formed from the same thing (i.e. the same signal); and (2) whether the "observable indicator" may be a quantity of measurement. The Court concludes (1) that the observable indicator must be formed from a single signal; and (2) that an observable indicator may be a quantity of measurement.

The general rule—subject to certain specific exceptions—is that each claim term is construed according to its ordinary and accustomed meaning as understood by one of

(Dkt. No. 153 at 4). However, Samsung withdrew this argument in the Reply, conceding that "there remain factual disputes for trial." (Dkt. No. 188 at 1).

ordinary skill in the art at the time of the invention in the context of the patent. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005); *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003); *Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1347 (Fed. Cir. 2014) ("There is a heavy presumption that claim terms carry their accustomed meaning in the relevant community at the relevant time.") (vacated on other grounds). "The claim construction inquiry . . . begins and ends in all cases with the actual words of the claim." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998). "[I]n all aspects of claim construction, 'the name of the game is the claim.'" *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1298 (Fed. Cir. 2014) (quoting *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998)). "Although the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims." *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)). "[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

Samsung points to the language of Claim 7, which states "a processor for processing the baseband receive calibration RF signal *to form* an observable indicator of I-Q imbalance." (Dkt. No. 188 at 5 (emphasis in original).) Based on this claim language, Samsung argues that "the plain of the meaning of the claim shows that the 'observable

indicator' is an indicator formed from a particular thing." (*Id*.) Samsung also argues that the specification provides further support for its position—Samsung contends that "every embodiment uses the same thing, the I and Q component signals at the output of the receive chain, to form the observable indicator that is minimized during both transmitter and receiver calibration." (*Id*.)

Red Rock argues that "[t]he patent never says that the observable 'must be formed from the same thing (e.g., a particular signal),'" and the patent discloses an embodiment in which observables are formed from "various transmit baseband input signals." (Dkt. No. 200 at 9.) Red Rock points to where the specification states that "the system observes 'various transmit baseband input signals' and forms four observables that indicate four gain combinations $G_{TI}G_{RI}$, $G_{TI}G_{RQ}$, $G_{TQ}G_{RI}$, and $G_{TQ}G_{RQ}$.'" . '313 Patent 8:64–9:6.

Claim 7 includes language requiring that the observable indicator be formed from a single signal. Claim 7 requires "a processor for processing the baseband receive calibration RF signal to form an observable indicator of I-Q imbalance." This claim language indicates that the observable indicator is formed from a processor that processes "the" baseband receive calibration RF signal. The use of "the" indicates that the claim is referring to only one signal. Thus, the claim requires that the observable indicator is formed by processing a single signal.[3]

[3] While this claim term appears to have issues with antecedent basis, the same term (observable indicator) is used consistently, and there is no sign that the term is intended to have a different meaning when it is reintroduced in the wherein clause. The Court therefore concludes that the subsequent reference to "an observable indicator" in the wherein clause is the same thing as "an observable indicator" in the "calibration subsystem" clause.

Red Rock's argument is largely based on items from the specification. However, "[t]he claim construction inquiry . . . begins and ends in all cases with the actual words of the claim." *Renishaw*, 158 F.3d at 1248. "Particular embodiments and examples appearing in the specification will not generally be read into the claims." *Comark Commc'ns*, 156 F.3d at 1187 (quoting *Constant*, 848 F.2d at 1571). As stated above, the claim language indicates that the observable indicator must be formed by processing a single signal. Even though the specification includes examples where the observable indicator comes from multiple signals, these examples should not alter the plain meaning of the claim language absent a clear indication that the patentee intended the claims to be so limited. *Liebel-Flarsheim Co.*, 358 F.3d at 913. The Court concludes that no such clear indication has been made here.

Claim 7 makes it clear that the "observable indicator" is formed by processing a single signal. Because of this, the Court will retain a construction of plain and ordinary meaning and will not further construe the "observable indicator" term due to this first dispute.

The claim language does not provide any indication that an observable indicator may not be a quantity of measurement. Further, the specification provides examples where the observable indicator is a quantity of measurement. '313 Patent 10:28–30 ("The observable, the magnitude squared of the ghost signal in the case that the test signal is a phasor, will vary in a parabolic manner with gain difference in the transmit channel."). Accordingly, the Court concludes that the observable indicator may be a quantity of

measurement, but it will otherwise retain a plain and ordinary meaning construction for this term.

The Court therefore retains the plain and ordinary meaning construction for the "observable indicator" term with the additional guidance that the "observable indicator" must be formed from a single signal and that it may be a quantity of measurement.

II. Proper construction for the "signal path for injecting the calibration RF signal" term

The parties dispute the term "signal path for injecting the calibration RF signal." Samsung contends that the proper interpretation of the term is "a signal path for injecting the calibration RF signal to determine transmitter I-Q gain settings and receiver I-Q gain settings." (Dkt. No. 188 at 8 n.10.) Red Rock appears to contend that the claim term should be given its plain meaning. (*See* Dkt. No. 200 at 9–10).

Samsung argues that "[b]ecause the claim defines the term 'calibration RF signal' as being a signal that calibrates the transmitter, the 'signal path' does not inject a 'calibration RF signal' unless the injected signal is used to calibrate the transmitter." (*Id*. at 8.) According to Samsung, Red Rock asserts that "the claim does not require the signal path to inject a signal to determine transmitter I-Q gain settings, arguing instead that there is just 'one calibration RF signal' and it is sufficient for only a portion of this signal – the portion that calibrates the receiver – to be injected via the signal path." (*Id*. at 7.) Samsung also argues that "every embodiment uses the signal path for injecting the calibration signal to calibrate both the transmitter and the receiver." (*Id*. at 10.)

Red Rock argues that Samsung's proposed construction unnecessarily narrows the claim language by requiring that the signal path "determine transmitter I-Q gain settings and receiver I-Q gain settings." (Dkt. No. 200 at 9–10.) Red Rock argues that "the fact that the calibration signal also takes additional paths through the transceiver cannot defeat infringement of a 'comprising' claim." (Dkt. No. 169 at 29.) Red Rock also argues that the specification discloses embodiments where the signal path is not used for injecting the calibration signal to calibrate both the transmitter and receiver, (Dkt. No. 200 at 10), pointing to where the specification states that "the method of this invention can be used to calibrate the I-Q gain balance in the receive chain alone," '313 Patent col. 8, l. 8–9.

The Court agrees that Samsung's proposed construction is unwarranted. The Court notes that the limitation is not imposed upon the signal path—the calibration cycle within the calibration RF signal is required to determine the transmitter I-Q gain settings and receiver I-Q gain settings. Samsung seeks to impose additional requirements upon the signal path merely because it is used "for injecting the calibration RF signal," but that would be improper. No limitations are imposed within the claims that the signal path is the only path that the calibration RF signal flows through. Even if the calibration RF signal is only injected via the signal path part of the time, that would still satisfy the claim language. Accordingly, **the Court will reject Samsung's proposed construction and will retain a plain and ordinary meaning for the "signal path for injecting the calibration RF signal" term.**

III. A reasonable jury could conclude that Accused Products containing accused Broadcom transceivers possess an "observable indicator" that is

minimized to determine both transmitter I-Q gain settings and receiver I-Q gain settings.

"As a general rule, summary judgment is inappropriate where an expert's testimony supports the non-moving party's case." *Vasudevan Software, Inc. v. MicroStrategy, Inc.*, 782 F.3d 671, 683 (Fed. Cir. 2015) (quoting *Provenz v. Miller*, 102 F.3d 1478, 1490 (9th Cir. 1996)); *Viveve, Inc. v. ThermiGen LLC*, No. 2:16-CV-01189-JRG, 2018 WL 3603056, at *3 (E.D. Tex. May 29, 2018).

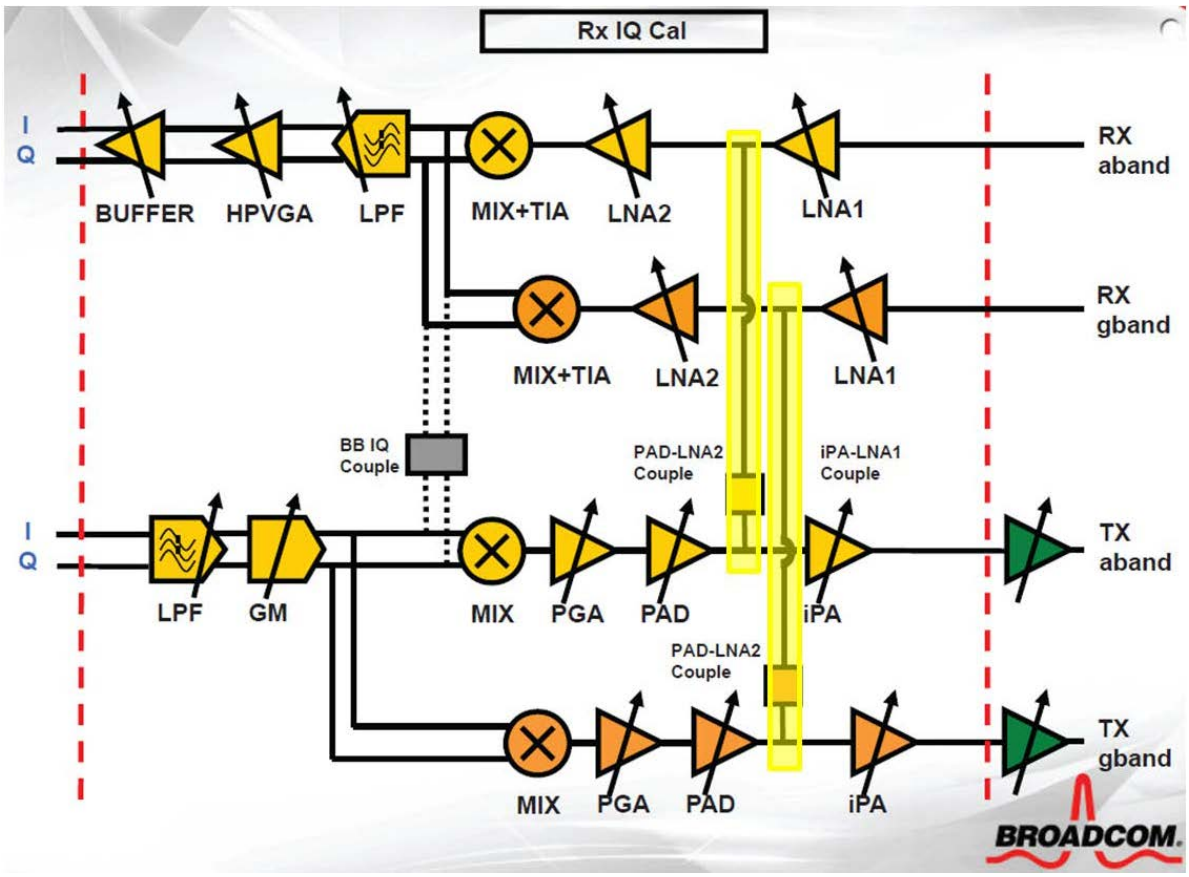
Here, Red Rock's expert Dr. Jones provided an opinion on this exact issue. Within his Expert Report, Jones stated that "[i]n both the transmit and receive chains the observable indicator is the difference between the calibration signal power on the I channel and the calibration signal power on the Q channel, which I refer to as "ΔP" as a shorthand." (Dkt. No. 169-4 at ¶ 109.) Jones later states that "[t]he calibration cycle determines the transmit I-Q gain settings that minimize the observable indicator (namely, ΔP) and applies these settings in the transmit IQ compensation block."[4] (*Id.* at ¶ 202.) Jones also states that "[t]he calibration cycle determines the receiver I-Q gain settings that minimize the observable indicator and applies these settings in the receive IQ compensation block." (*Id.* at ¶ 218.) And even with the construction above for "observable indicator," Dr. Jones has provided an opinion that only one calibration signal exists in each accused product, suggesting that the observable indicator may be formed from a single signal. (Dkt. No. 200 at 6 (citing Dkt. No. 169-2 at ¶ 10).)

[4] The calibration cycle is included within the calibration RF signal according to Claim 7.

Samsung did not file any Daubert motion on any of Jones' opinions related to this issue. While Samsung filed a Motion to Exclude Testimony of Roy Weinstein and Christopher Jones (Dkt. No. 149), that Motion challenges the damages calculations and not any infringement opinions made by Jones. Jones' opinions on the issue are not conclusory and appear to have some support within his Report. Based on his opinions on this issue, a reasonable jury could conclude that Samsung infringed. Consequently, Samsung's Motion for Summary Judgment of Non-Infringement should be **DENIED** on this issue.

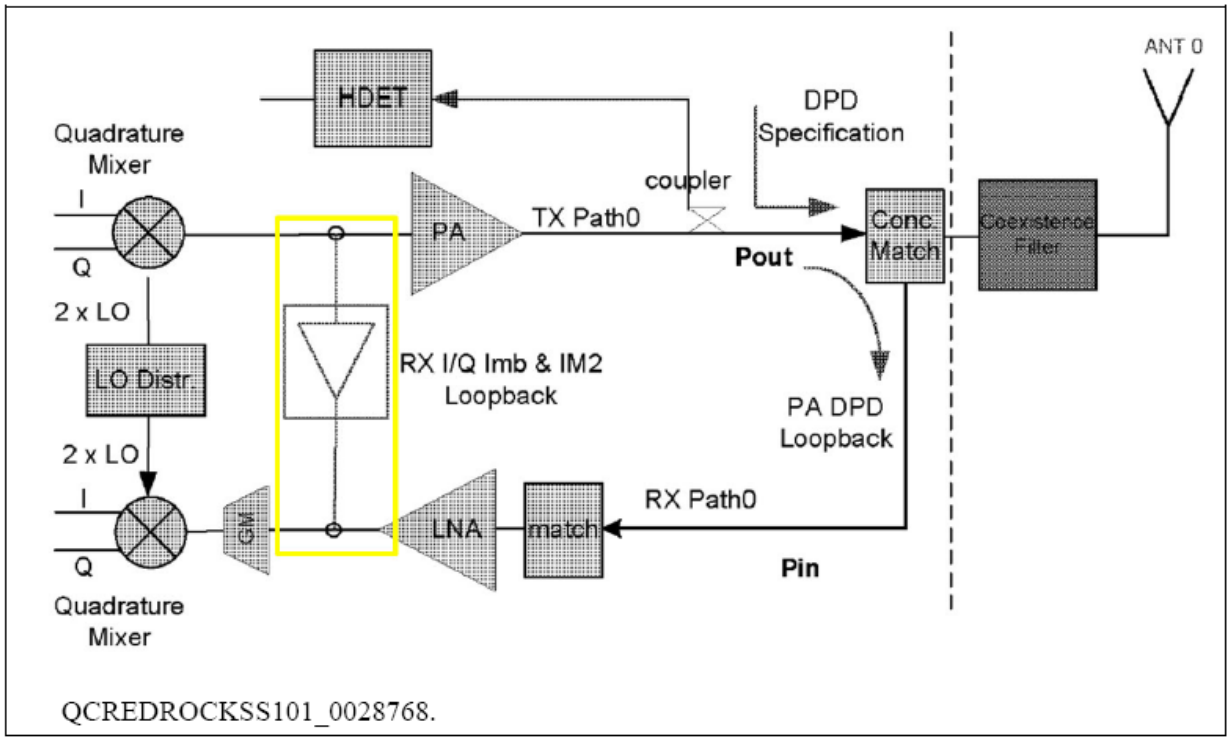
IV. A reasonable jury could conclude that the accused transceivers within all of the Accused Products include a signal path for injecting the calibration RF signal from the RF transmit signal port to the RF receive signal port.

Similar to the previous issue, Jones provides an opinion that precludes granting summary judgment. Jones states that "[e]ach Broadcom Infringing Product includes a signal path for injecting the calibration RF signal from the RF transmit signal port to the RF receive signal port." (Dkt. No. 169-4 at ¶ 181.) Jones provided the figure that depicts the Broadcom chips and identified what he considered to be an injection path that satisfied the limitations:



(*Id*. at 184.) Jones also states that his "opinions about this claim limitation are the same for all Broadcom Infringing Products." (*Id*. at 186.)

Jones also states that "[e]ach Qualcomm Infringing Product includes a signal path for injecting the calibration RF signal from the RF transmit signal port to the RF receive signal port." (Dkt. No. 169-4 at ¶ 360.) Jones provides a diagram illustrating the accused Qualcomm chips and highlighted what he considered to be an injection path that satisfied the limitations:



(*Id.* at 364.) He also provided diagrams for other Qualcomm chips. (*Id.* at 368.)

Jones' opinions alone are sufficient to allow a reasonable jury to conclude that the accused products containing the accused Broadcom or Qualcomm chips possess a signal path with the required limitations. Accordingly, a fact issue is present, and this Motion for Summary Judgment should be **DENIED** on this argument.

V. Conclusion

The Court notes that an "observable indicator" must be processed from a single calibration RF signal based on the claim language and that it may be a quantity of measurement. However, this is apparent from the claims as they are currently written, and no further construction is required for the "observable indicator" term. The Court construes the "signal path for injecting" term to possess its plain and ordinary meaning and rejects

Samsung's proposed construction. The Court recommends that Samsung's Motion for Summary Judgment (Dkt. No. 153) be **DENIED**.

With respect to all portions of this Report and Recommendation other than the claim construction portion, a party's failure to file written objections to the findings, conclusions, and recommendations within 14 days bars that party from *de novo* review by the district judge of those findings, conclusions, and recommendations and, except on grounds of plain error, from appellate review of unobjected-to factual findings and legal conclusions accepted and adopted by the district court. Fed. R. Civ. P. 72(b)(2); *see Douglass v. United Servs. Auto. Ass'n*, 79 F.3d 1415, 1430 (5th Cir. 1996) (en banc).

SIGNED this 6th day of March, 2019.

ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE